

October 14, 1993

CD-93-19 (LDV, LDT, ICI, HD, SM)

Dear Manufacturer:

SUBJECT: Carryover of MY95 CARB Evaporative Data

The enclosed letter was recently sent to the Association of International Automobile Manufacturers (AIAM). It is in response to their question on EPA policy and outlines the EPA position on the carryover of 1995 CARB evaporative test data to demonstrate compliance with 1996 Federal evaporative standards. The letter is provided for your information and planning purposes.

Questions and comments should be addressed to your EPA Certification Representative.

Sincerely,

Robert E. Maxwell, Director
Certification Division

Office of Mobile Sources

Enclosure

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October 14, 1993

Gregory J. Dana, Vice President & Technical Director
Association of International Automobile Manufacturers
1011 19th St. North
Arlington, VA. 22209

Dear Mr. Dana:

Subject: Carryover of MY95 CARB Evaporative Data

This letter responds to your April 14, 1993 letter requesting that EPA establish a carryover policy that will allow use of 1995 model year California Air Resources Board (CARB) evaporative certification data, at a manufacturer's option, through at least the 1997 model year. Your letter points out that CARB is expected to modify their test procedure for 1996 and later model years and states that "Our members are concerned about the possible loss of any 1995 model year certification efforts if a new procedure is adopted for 1996 and carryover of the data is disallowed."

After receiving your letter, the California Air Resources Board (CARB) issued Mail Out #93-26, "Draft Regulation Proposal for Revisions to the Evaporative Emission Test Procedures," May 14, 1993. In that mailout, CARB proposed several revisions/additions to the exhaust and evaporative test procedures for 1996 and later model years; asked manufacturers to supply test data comparing evaporative emissions from the 7 RVP/105°F test procedure to the 9 RVP/95°F test procedure; invited comments on allowing carry-over of 1995 model year data to 1996 and subsequent model years; and invited comments on several unresolved aspects of the CARB test procedure.

Concurrently with CARB's ongoing action, the EPA is reviewing CARB's waiver request for it's 1995 evaporative standards and test procedures under the criteria set forth in section 209 of the Clean Air Act. Once CARB finalizes its 1996 evaporative emission standards and test procedures, EPA anticipates CARB submitting a waiver request for such standards and test procedures subject to EPA approval under section 209.

In general, our evaporative carryover policy is to treat each carryover request on a case-by-case basis, using the guidelines contained in Advisory Circular (A/C) 17F (SUBJECT: General Criteria for the Carryover and Carry-Across of Certification Data and the Carryover of Fuel Economy Data for Light-Duty Vehicles and Light-Duty Trucks). However, your letter requests carryover guidance in cases where the test procedure changes from year to year, a situation which was not anticipated when A/C was written, but which was anticipated by the recent evaporative rulemaking (ref. Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Evaporative Emission Regulations; Final Rule (FRM), 58 FR 16002, March 24, 1993). Carryover guidance relevant to your request are contained in several places, as follows:

First, the FRM establishes the intent of the EPA 3-diurnal test sequence to be equivalent to the 1995 CARB 3-diurnal test sequence, (ref. 58 FR 16011-12, March 24, 1993). Based on existing data, the Agency believes that the differences between the two test procedures are offsetting, and that either CARB's or EPA's 3-diurnal test procedure, combined with EPA's supplemental 2-day diurnal test procedure, can be used to demonstrate control of evaporative emissions as required by sections 202(a) and 202(k) of the Clean Air Act. Some of the differences between CARB's 1995 and EPA's 3-diurnal test procedures are as follows:

<u>Difference:</u>	<u>CARB (1995)</u>	<u>EPA</u>
Fuel RVP	7.0*	9.0 (7.8 @ altitude)
Running Loss Temp	105°F	95°F
Running Loss Cycle	3 UDDS	UDDS, 2 NYCC, UDDS
Hot Soak Test Temp	105°F	95°F
Diurnal Temp Ranges	65-105°F	72-96°F
Subtract non-fuel background emissions?	Y (method TBD)	No

*Indolene test fuel (8.7-9.2 RVP) is optional, however manufacturers are expected to use California Phase II test fuel (6.7-7.0 RVP).

Second, the FRM goes to great length to establish that the CARB 3-diurnal test, by itself, does not adequately demonstrate control of evaporative emissions as required by sections 202(a) and 202(k) of the Clean Air Act (ref. Section III. B. "Sequence of Test Segments," 58 FR 16009-12, March 24, 1993). For reasons discussed in the FRM, a supplementary 2-diurnal test sequence and a spitback test were added to a modified CARB 3-diurnal test sequence to create EPA's complete evaporative test procedure. Although the FRM

did not discuss carryover situations, EPA nevertheless believes that the concerns that apply to certification, i.e. the addition of the supplemental and spitback tests, also apply to carryover testing. Therefore, carryover testing should include evaporative data from the 3-diurnal test sequence, the 2-diurnal test sequence and the spitback test.

Third, the regulations require the evaporative test vehicle to also demonstrate compliance with applicable exhaust emission standards. Therefore, EPA needs assurance that the EPA certification test vehicle will meet federal exhaust emission standards when tested on EPA test fuel using EPA test procedures since, as you know, California test fuel results in inherently lower levels of exhaust HC, CO, and NOx formation than federal test fuel.

Based on the above discussion, we intend to allow manufacturers to carryover evaporative data from GARB's 1995 3-day diurnal test sequence to demonstrate compliance with 1996 Federal 3-day diurnal evaporative standards, provided:

- . the carryover request satisfies the criteria contained in Advisory Circular 17F;
- . data from the EPA 2-day diurnal test sequence demonstrates compliance with applicable exhaust and evaporative standards (using EPA 9.0 RVP test fuel); and
- . data from the EPA spitback test demonstrates compliance with applicable standards.

Manufacturers may perform additional EPA tests and submit a test request to EPA at any time, e.g. a year before they need to carryover the data. As explained in the FRM, EPA may perform confirmatory testing on vehicles, using any test procedure allowable under the regulations, and may truncate any test procedure after any emission measurement, (ref. 58 FR 16007, March 24, 1993).

It should be noted, however, that EPA is continuing to evaluate the impact of the differences between the CARB and EPA test procedures. Carryover requests may be denied if EPA finds that those differences make the CARB procedure significantly less stringent than the EPA procedure. In particular, carryover requests are likely to be denied due to the subtraction of background emissions in submitted test results or diurnal testing which involves insufficient air flow around the vehicle fuel tank.

Regarding carryover and carry-across of 1996 CARB evaporative emission data, we cannot supply definitive guidance until the 1996 CARB test procedure is finalized. At that time, we intend to request comments and

supporting data from manufacturers on the appropriateness of using GARB data to satisfy federal evaporative test requirements. GARB's proposed changes are expected to make the 1996 CARB evaporative test procedures more consistent with EPA's 2-diurnal and 3-diurnal test procedures. However, we are concerned that (by itself) the EPA 2-day diurnal test sequence may be directionally more severe than the proposed CARB 2-day diurnal test sequence, due primarily to the differences in the RVP of the test fuel.

If you have any questions or comments about this letter, feel free call Dave Good on (313) 668-4450 or me on (313) 668-4280.

Sincerely,

Thomas M. Ball, Chief
Compliance Programs Branch

cc: K. D. Drachand, CARB

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